

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

Replace second new paragraph on page 12, as follows:

[Embodiments of the present invention also comprises surface oxidizing the surface of layer to achieve superior recording performance, particularly for longitudinal magnetic recording. Both surface-oxidized and non-oxidized amorphous NiNb sealing layers significantly reduce Li leaching. A surface-oxidized layer is one having more than 0.5 at.% oxygen in a top 50Å region after in-situ sputter removal of a 40Å surface layer. In a preferred embodiment, the surface-oxidized layer has more than 10 at.% oxygen in the top 50Å region after in-situ sputter removal of a 40Å surface layer.]

Embodiments of the present invention also comprises surface oxidizing the surface of the NiNb sealing layer to achieve superior recording performance, particularly for longitudinal magnetic recording. Both surface-oxidized and non-oxidized amorphous NiNb sealing layers significantly reduce Li leaching. A surface-oxidized layer is one having more than 0.5 at.% oxygen in a top 50Å region after in-situ sputter removal of a 40Å surface layer. In a preferred embodiment, the surface-oxidized layer has more than 10 at.% oxygen in the top 50Å region after in-situ sputter removal of a 40Å surface layer.

In the Claims:

21. (Twice Amended) A longitudinal or perpendicular magnetic recording medium comprising, in this order:

a glass or glass-ceramic substrate comprising Li;
a sealing layer comprising substantially amorphous NiNb directly deposited on the glass or glass-ceramic substrate; and
a magnetic layer,
wherein the sealing layer has a thickness in a range of about 100Å to about 450Å [or less]
and substantially prevents migration of Li from the substrate to the magnetic layer of the magnetic recording medium.

22. (Twice Amended) A method of manufacturing a longitudinal or perpendicular magnetic recording medium, the method comprising:

sputter depositing a sealing layer comprising substantially amorphous NiNb directly on a glass or glass-ceramic substrate comprising Li; and

sputter depositing a magnetic layer on the sealing layer;

wherein the sealing layer has a thickness in a range of about 100Å to about 450Å [or less]
and substantially prevents migration of Li from the substrate to the magnetic layer of the magnetic recording medium.

23. (Thrice Amended) A longitudinal or perpendicular magnetic recording medium comprising, in this order:

a glass or glass-ceramic substrate comprising Li;

a sealing means comprising NiNb directly on the substrate having a thickness in a range of about 100Å to about 450Å [or less] for substantially preventing migration of Li from the substrate to a magnetic layer of the magnetic recording medium; and

the magnetic layer.